



Date: _____

Experiment Title:

Student's Name : _____

Parent's Name : _____

Parent's Email : _____

Parent's Phone : _____

? Purpose - Ask a Testable QUESTION:
Keep it simple, something you can source materials and equipment for and measure results objectively.



Background RESEARCH:

What are six key things you learned through research relating your topic? Use complete sentences.

What are the BIG IDEAS you need to know before planning the experiment?

1: _____

2: _____

3: _____

4: _____

5: _____

6: _____





Student's Name : _____
(In case the pages are separated.)

Independent Variable:

What is the one thing you want change in each trial?

**Remember only one thing can change to be a fair test, everything else must be controlled.*



Forming a HYPOTHESIS (Taking your best guess):

What do you think will happen when you change your variable?



Draw a technical diagram of how your EXPERIMENT will be set up:

Be precise and use labels, we should have a clear idea what you will do.





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Controls:

*To create a fair test ONLY your independent variable can change. What are the things you must control in your experiment which might change your results unfairly? How can you be sure there is only one changing part to the experiment? Common examples include: temperature, lighting, color and concentrations of chemicals in solutions. *How you plan on controlling these other factors should be noted in your step-by-step plan.*

- | | |
|----------|-----------|
| 1: _____ | 6: _____ |
| 2: _____ | 7: _____ |
| 3: _____ | 8: _____ |
| 4: _____ | 9: _____ |
| 5: _____ | 10: _____ |



Materials List:

List everything: specific equipment, supplies, safety items and measuring tools.

- | | |
|-----------|-----------|
| 1: _____ | 13: _____ |
| 2: _____ | 14: _____ |
| 3: _____ | 15: _____ |
| 4: _____ | 16: _____ |
| 5: _____ | 17: _____ |
| 6: _____ | 18: _____ |
| 7: _____ | 19: _____ |
| 8: _____ | 20: _____ |
| 9: _____ | 21: _____ |
| 10: _____ | 22: _____ |
| 11: _____ | 23: _____ |
| 12: _____ | 24: _____ |





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Step-by-Step Plan:

What are the steps to complete your experiment?

**Use complete sentences and include measurements and information needed to carry out your experiment precisely. It also needs to include multiple tests changing ONLY your independent variable.*

We should be able to replicate your experiment based on your plan here.

- 1: _____
- 2: _____
- 3: _____
- 4: _____
- 5: _____
- 6: _____
- 7: _____
- 8: _____
- 9: _____
- 10: _____
- 11: _____
- 12: _____
- 13: _____
- 14: _____
- 15: _____
- 16: _____
- 17: _____
- 18: _____
- 19: _____
- 20: _____
- 21: _____
- 22: _____
- 23: _____
- 24: _____
- 25: _____
- 26: _____
- 27: _____
- 28: _____
- 29: _____





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Carry out the experiment as planned and Collect Data:

Record the results on the T Chart below, or use another sheet of paper if needed.

<i>Independent Variable</i>							
	<i>Results (remember to record your units)</i>						
		Trial #1					
		Trial #2					
		Trial #3					
	Test #1						
	Test #2						
	Test #3						
	Test #4						
	Test #5						
	Test #6						





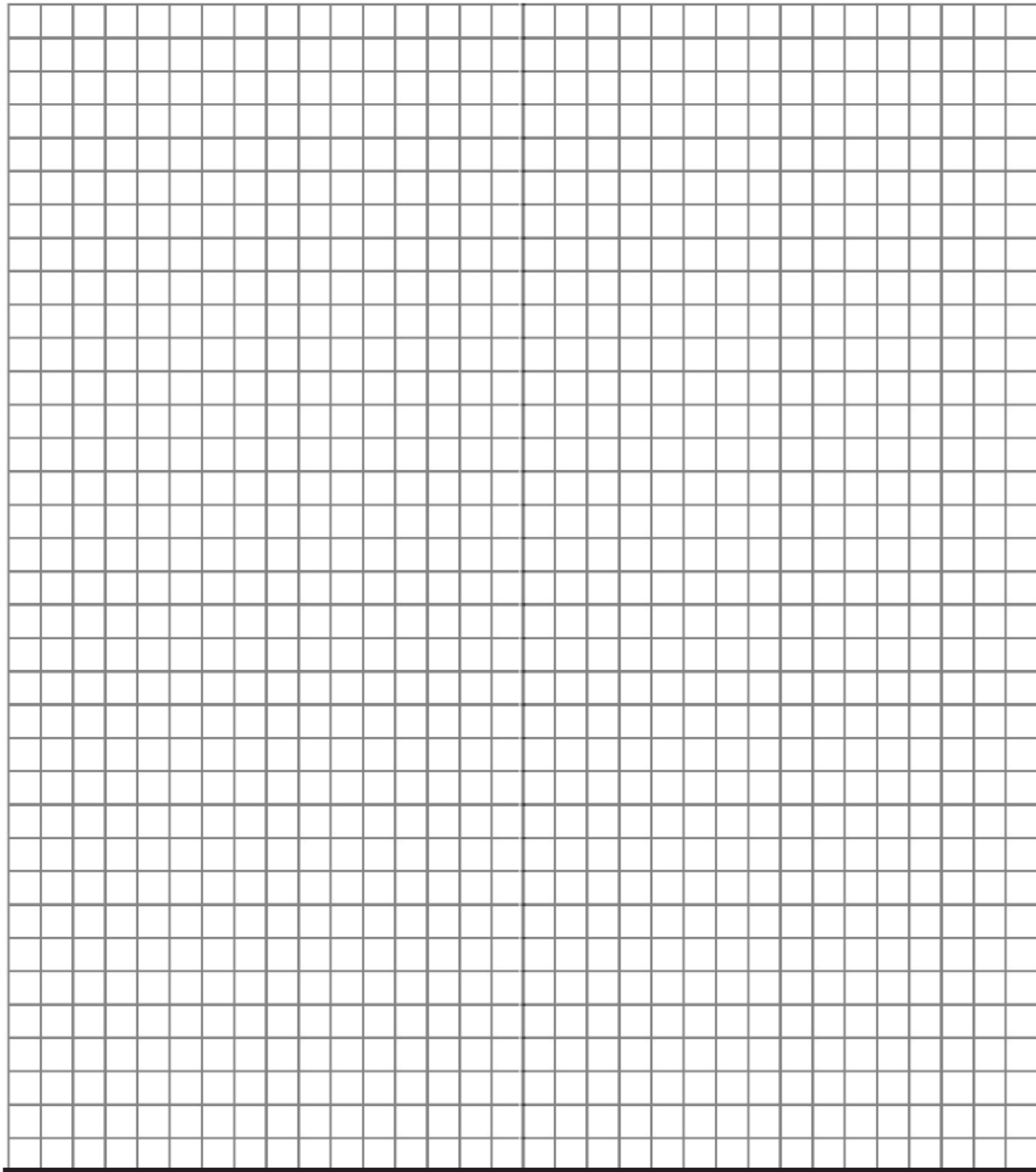
Student's Name : _____
(In case the pages are separated.)



Graphing:

Please graph the data above with an appropriate graph.

**Remember to name the graph, label your units, decide on a range, etc. We made a couple of notes to help you get started. Make sure it is beautiful, precise, clean and clear, use another piece of graph paper instead if needed.*



Title: _____

X Axis: Independent Variable

Y Axis: Results





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Drawing CONCLUSIONS:

Examples: Which test had the biggest results? Which had the smallest results? What was your average result? Were there any outliers in your data, if so why? Did anything surprise you?



REPORT: Was your hypothesis correct? Why or why not?

**Please use complete sentences and DIRECTLY restate your hypothesis in your answer here.*

What would you do differently next time?

What additional questions came to mind regarding this topic?

